

## National Transportation Safety Board

FACTUAL REPORT  
AVIATION

NTSB Accident/Incident Number

M / A 9 9 F A 2 4 5

## Supplement C—Wreckage Documentation, Multi-(3 or more) Reciprocating Engine and Turbine-Powered Aircraft

<b>Landing Gear Position</b>	<b>1 Nose/Tail</b> 1 <input type="checkbox"/> Up 2 <input checked="" type="checkbox"/> Down 3 <input type="checkbox"/> Intermediate A Other	<b>2 Left Main</b> 1 <input type="checkbox"/> Up 2 <input checked="" type="checkbox"/> Down 3 <input type="checkbox"/> Intermediate A Other	<b>3 Right Main</b> 1 <input type="checkbox"/> Up 2 <input checked="" type="checkbox"/> Down 3 <input type="checkbox"/> Intermediate A Other	<b>4 Body Gear</b> 1 <input checked="" type="checkbox"/> Not installed 2 <input type="checkbox"/> Up 3 <input type="checkbox"/> Down 4 <input type="checkbox"/> Intermediate A Other
	<b>Landing Gear Damage</b>	<b>A Impact</b> 1 Destroyed 2 Substantial 3 Minor/None		<b>B Fire</b> 1 Destroyed 2 Substantial 3 Minor/None
<b>Trailing Edge Flap Positions</b>	<b>5 Nose/tail</b> 1 <input checked="" type="checkbox"/> Destroyed 2 <input type="checkbox"/> Substantial 3 <input type="checkbox"/> Minor/None	<b>6 Left/main</b> 1 <input checked="" type="checkbox"/> Destroyed 2 <input type="checkbox"/> Substantial 3 <input type="checkbox"/> Minor/None	<b>7 Right/main</b> 1 <input checked="" type="checkbox"/> Destroyed 2 <input type="checkbox"/> Substantial 3 <input type="checkbox"/> Minor/None	
	<b>8 Left Inboard</b> 1 <input checked="" type="checkbox"/> Up A Down _____ deg. B Other	<b>9 Left Outboard</b> 1 <input checked="" type="checkbox"/> Up A Down _____ deg. B Other	<b>10 Right Inboard</b> 1 <input type="checkbox"/> Up A Down _____ deg. B Other N/A	<b>11 Right Outboard</b> 1 <input type="checkbox"/> Up A Down _____ deg. B Other N/A
	<b>13 Left Inboard</b> 1 <input type="checkbox"/> Up A Down _____ deg. B Other	<b>14 Left Outboard</b> 1 <input type="checkbox"/> Up A Down _____ deg. B Other	<b>15 Right Inboard</b> 1 <input type="checkbox"/> Up A Down _____ deg. B Other	<b>16 Right Outboard</b> 1 <input type="checkbox"/> Up A Down _____ deg. B Other
	<b>12 <input checked="" type="checkbox"/> Not Installed</b> (Go to block 17)			
<b>Leading Edge Slat Position</b>	<b>18 Left Inboard</b> 1 <input type="checkbox"/> Up A Down _____ deg. B Other	<b>19 Left Outboard</b> 1 <input type="checkbox"/> Up A Down _____ deg. B Other	<b>20 Right Inboard</b> 1 <input type="checkbox"/> Up A Down _____ deg. B Other	<b>21 Right Outboard</b> 1 <input type="checkbox"/> Up A Down _____ deg. B Other
	<b>17 <input checked="" type="checkbox"/> Not Installed</b> (Go to block 22)			
<b>Spoiler Positions</b>	<b>23 Flight Spoilers-Left</b> 1 <input type="checkbox"/> Stowed 2 <input type="checkbox"/> Deployed A Other	<b>24 Flight Spoilers-Right</b> 1 <input type="checkbox"/> Stowed 2 <input type="checkbox"/> Deployed A Other	<b>25 Ground Spoilers-Left</b> 1 <input type="checkbox"/> Stowed 2 <input type="checkbox"/> Deployed A Other	<b>26 Ground Spoilers-Right</b> 1 <input type="checkbox"/> Stowed 2 <input type="checkbox"/> Deployed A Other
	<b>22 <input checked="" type="checkbox"/> Not Installed</b> (Go to block 27)			
<b>Trim Tab Positions</b> (Multiple entry)	<b>28 Left Aileron</b> 1 <input type="checkbox"/> Not installed 2 <input checked="" type="checkbox"/> Neutral 3 <input type="checkbox"/> Up 4 <input type="checkbox"/> Down A _____ deg. B Other	<b>29 Right Aileron</b> 1 <input type="checkbox"/> Not installed 2 <input checked="" type="checkbox"/> Neutral 3 <input type="checkbox"/> Up 4 <input type="checkbox"/> Down A _____ deg. B Other	<b>30 Upper Rudder</b> 1 <input checked="" type="checkbox"/> Not installed 2 <input type="checkbox"/> Neutral 3 <input type="checkbox"/> Left 4 <input type="checkbox"/> Right A _____ deg. B Other	<b>31 Lower Rudder</b> 1 <input checked="" type="checkbox"/> Not installed 2 <input type="checkbox"/> Neutral 3 <input type="checkbox"/> Left 4 <input type="checkbox"/> Right A _____ deg. B Other
	<b>27 <input type="checkbox"/> Not Installed</b> (Go to block 33)			
<b>Cargo Restraint System(s)</b> (Multiple entry for each block)	<b>33 Cargo Restraint Installed</b> 1 <input checked="" type="checkbox"/> None (Go to block 36) 2 <input type="checkbox"/> Cargo net 3 <input type="checkbox"/> Straps/tie down A Other	<b>34 Cargo Restraint Used</b> 1 <input type="checkbox"/> None (Go to block 36) 2 <input type="checkbox"/> Cargo net 3 <input type="checkbox"/> Straps/tie down A Other	<b>35 Cargo Restraint Failed</b> 1 <input type="checkbox"/> None 2 <input type="checkbox"/> Cargo net 3 <input type="checkbox"/> Straps/tie down A Other	
	<b>36 Airframe/Structure, Evidence of In-flight Separation/Failure (Multiple entry)</b> 1 <input checked="" type="checkbox"/> None 2 <input type="checkbox"/> Helicopter (Complete Supplement G) 3 <input type="checkbox"/> General disintegration 4 <input type="checkbox"/> Left wing 5 <input type="checkbox"/> Right wing 6 <input type="checkbox"/> Left stab/elevator 7 <input type="checkbox"/> Right stab/elevator 8 <input type="checkbox"/> Vertical fin/rudder 9 <input type="checkbox"/> Canard 10 <input type="checkbox"/> Tail cone 11 <input type="checkbox"/> Powerplant 12 <input type="checkbox"/> Powerplant nacelle 13 <input type="checkbox"/> Cabin door(s) 14 <input type="checkbox"/> Cargo door(s) A Specify _____ B Other			

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## 39 Flight Control System, Evidence of Operational Failure or Malfunction (Multiple entry)

1 ☒ None4 ☐ Yaw control2 ☐ Pitch Control

A Specify \_\_\_\_\_

3 ☐ Roll control

B Other \_\_\_\_\_

## 40 Aircraft STOL Modification Installed

1 ☐ Yes2 ☒ No

A Other \_\_\_\_\_

Computed Weight and Balance Information—Complete when weight and/or center of gravity limitations are exceeded. Otherwise, go to block 51.

## Takeoff

## 45 Weight

10,372 Lbs.

## 46 Center of Gravity

A \_\_\_\_\_ % MAC or

B \_\_\_\_\_ Inches

## 47 CG Range (Multiple entry)

1 ☐ At takeoff weight

A \_\_\_\_\_ % MAC to \_\_\_\_\_ MAC or

2 ☐ At max gross weight

B \_\_\_\_\_ Inches to \_\_\_\_\_ Inches

## Accident

## 48 Weight

7,902 Lbs.

## 49 Center of Gravity

A \_\_\_\_\_ % MAC or

B \_\_\_\_\_ Inches

## 50 CG Range (Multiple entry)

1 ☐ At takeoff weight2 ☐ At accident weight

A \_\_\_\_\_ % MAC to \_\_\_\_\_ MAC or

B \_\_\_\_\_ Inches to \_\_\_\_\_ Inches

## 51 Fuel On Board at Accident

1 ☐ Estimated2 ☒ Verified

A 2 Gallons

B \_\_\_\_\_ Pounds C Other \_\_\_\_\_

Fuel Tanks	Fuel On Board at Accident			D Tank Construction				F Spillsafe Fittings			H Fuel Leakage/Rupture				
	A Gallons Estimated	B Gallons Verified	C Other	1 Wet Wing	2 Bladder	3 Metal	E Other	1 Yes	2 No	G Other	1 None	2 Line	3 Fitting	4 Tank	I Other
52 Left Wing		0				X		Y						X	
53 Right Wing		0				X		X						X	
54 Left Tip															
55 Right Tip															
56 Fuselage															
57 (Specify) <u>APCella NH</u>		2				X		X						X	

## Engine/Propeller Historical Information

Engines	A Engine #1	B Engine #2	C Engine #3	D Engine #4	E Other
60 Serial Number	PCE-20801	PCE-22608			
61 Hours, Total	24,874	32,447			
62 Date, Last Overhaul (Nos. for M, D, Y)					UNIK
63 Hours, Since Last Overhaul	2,926	3,113.9			
64 Date, Last Inspection (Nos. for M, D, Y)	4/5/99	4/5/99			
65 Hours, Since Last Inspection	75	75			

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Propellers <b>68</b> Not installed (Go to block 85)	A Engine #1	B Engine #2	C Engine #3	D Engine #4	E Other
<b>69</b> Propeller Manufacturer	HARTZELL	HARTZELL			
<b>70</b> Propeller Model/Series Number	HC-B3TN-3	HC-B3TN-3			
<b>71</b> Hours, Total					
<b>72</b> Hours, Since Overhaul					
<b>73</b> Date, Last Overhaul (Nos. for M, D, Y)					
<b>74</b> Hours, Since Last Inspection					
<b>75</b> Date, Last Inspection (Nos. for M, D, Y)					
<b>78</b> Propeller Type (Multiple entry)		<b>79</b> Engine Supercharger		<b>80</b> Engine Turbocharger	
1 <input type="checkbox"/> None installed 2 <input checked="" type="checkbox"/> Metal 3 <input type="checkbox"/> Composite 4 <input type="checkbox"/> Constant speed-controllable pitch 5 <input checked="" type="checkbox"/> Reversible 6 <input type="checkbox"/> Full automatic feathering 7 <input type="checkbox"/> Full manual feathering A Other		<b>Installed</b> 1 <input type="checkbox"/> Yes 2 <input checked="" type="checkbox"/> No A Other		<b>Installed</b> 1 <input type="checkbox"/> Yes 2 <input checked="" type="checkbox"/> No A Other	
<b>Firewall Valve Shutoff Position</b>			<b>85</b> <input type="checkbox"/> Not installed (Go to block 90)		
<b>86</b> Engine #1		<b>87</b> Engine #2		<b>88</b> Engine #3	
1 <input type="checkbox"/> Not installed 2 <input checked="" type="checkbox"/> Open 3 <input type="checkbox"/> Closed A Other		1 <input type="checkbox"/> Not installed 2 <input checked="" type="checkbox"/> Open 3 <input type="checkbox"/> Closed A Other		1 <input checked="" type="checkbox"/> Not installed 2 <input type="checkbox"/> Open 3 <input type="checkbox"/> Closed A Other	
<b>Thrust Reverser Position</b>			<b>90</b> <input checked="" type="checkbox"/> Not installed (Go to block 97)		
	1 Open	2 Closed	3 Intermediate	A Other	
<b>91</b> #1 Engine					
<b>92</b> #2 Engine					
<b>93</b> #3 Engine					
<b>94</b> #4 Engine					
<b>97</b> Fuel Found In #1 Engine (Multiple entry)			<b>98</b> Fuel Found In #2 Engine (Multiple entry)		
1 <input checked="" type="checkbox"/> None 2 <input type="checkbox"/> Lines 3 <input type="checkbox"/> Strainer 4 <input type="checkbox"/> Fuel control 5 <input type="checkbox"/> Carburetor/fuel injector 6 <input type="checkbox"/> Engine driven pump 7 <input type="checkbox"/> Aux fuel pump 8 <input type="checkbox"/> Filter(s) 9 <input type="checkbox"/> Selector valve 10 <input type="checkbox"/> Fuel manifold/spider A Other			1 <input checked="" type="checkbox"/> None 2 <input type="checkbox"/> Lines 3 <input type="checkbox"/> Strainer 4 <input type="checkbox"/> Fuel control 5 <input type="checkbox"/> Carburetor/fuel injector 6 <input type="checkbox"/> Engine driven pump 7 <input type="checkbox"/> Aux fuel pump 8 <input type="checkbox"/> Filter(s) 9 <input type="checkbox"/> Selector valve 10 <input type="checkbox"/> Fuel manifold/spider A Other		

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<b>99 Fuel Found In #3 Engine (Multiple entry)</b> 1 <input type="checkbox"/> None 2 <input type="checkbox"/> Lines 3 <input type="checkbox"/> Strainer 4 <input type="checkbox"/> Fuel control 5 <input type="checkbox"/> Carburetor/fuel injector 6 <input type="checkbox"/> Engine driven pump 7 <input type="checkbox"/> Aux fuel pump 8 <input type="checkbox"/> Filter(s) 9 <input type="checkbox"/> Selector valve 10 <input type="checkbox"/> Fuel manifold/spider A Other <u>N/A</u>		<b>100 Fuel Found In #4 Engine (Multiple entry)</b> 1 <input type="checkbox"/> None 2 <input type="checkbox"/> Lines 3 <input type="checkbox"/> Strainer 4 <input type="checkbox"/> Fuel control 5 <input type="checkbox"/> Carburetor/fuel injector 6 <input type="checkbox"/> Engine driven pump 7 <input type="checkbox"/> Aux fuel pump 8 <input type="checkbox"/> Filter(s) 9 <input type="checkbox"/> Selector valve 10 <input type="checkbox"/> Fuel manifold/spider A Other <u>N/A</u>	
<b>101 Fuel Samples Analyzed</b> 1 <input type="checkbox"/> Yes 2 <input checked="" type="checkbox"/> No A Other	<b>102 Fuel, Evidence of Improper Grade or Contamination (Multiple entry)</b> 1 <input checked="" type="checkbox"/> None 2 <input type="checkbox"/> Improper Grade 3 <input type="checkbox"/> Contamination A Other	<b>103 Lube Oil Analyzed</b> 1 <input type="checkbox"/> Yes 2 <input checked="" type="checkbox"/> No A Other	<b>104 Lube Oil, Evidence of Improper Grade or Contamination (Multiple entry)</b> 1 <input checked="" type="checkbox"/> None 2 <input type="checkbox"/> Improper Grade 3 <input type="checkbox"/> Contamination A Other
<b>105 Engine In-flight Failure (Multiple entry)</b> 1 <input type="checkbox"/> No 2 <input checked="" type="checkbox"/> Yes 3 <input checked="" type="checkbox"/> Rotational 4 <input type="checkbox"/> Explosion A Other	<b>106 Engine Failure Position (Multiple entry)</b> 1 <input checked="" type="checkbox"/> #1 2 <input checked="" type="checkbox"/> #2 3 <input type="checkbox"/> #3 4 <input type="checkbox"/> #4 A Other	<b>107 Failure Contained</b> 1 <input checked="" type="checkbox"/> Yes 2 <input type="checkbox"/> No A Other	<b>108 Engine In-flight Fire (Multiple entry)</b> 1 <input checked="" type="checkbox"/> None 2 <input type="checkbox"/> #1 Engine 3 <input type="checkbox"/> #2 Engine 4 <input type="checkbox"/> #3 Engine 5 <input type="checkbox"/> #4 Engine A Other

## ELT (Emergency Locator Transmitter) Information

<b>112 Preimpact Location of ELT's (Multiple entry)</b> (Enter number by location) A Cockpit _____ D Raft _____ B Cabin <u>X</u> E Survival kit _____ C Empennage _____ F Other _____	<b>113 Reason(s) for ELT Failure/Noneffectiveness (Enter codes from list below by ELT location)</b> (Multiple entry) A Cockpit _____ C Empennage _____ E Survival kit _____ B Cabin <u>07</u> D Raft _____ F Other _____
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## Reason(s) for Noneffectiveness/Failure (ELT choices for block 113)

- |                                  |                                |   |                                   |
|----------------------------------|--------------------------------|---|-----------------------------------|
| 01 Insufficient G's              | 07 Fire damage                 | 12 Shielded by wreckage                 | 17 Packing device still installed |
| 02 Improper installation         | 08 Impact damage               | 13 Shielded by terrain                  | 18 Remote switch off              |
| 03 Battery corroded              | 09 Antenna broken/disconnected | 14 Internal failure                     |                                   |
| 05 Battery installed incorrectly | 10 Water submersion            | 15 Tested satisfactorily after accident |                                   |
| 06 Incorrect battery             | 11 Unit not armed              | 16 Signal direction altered by terrain  |                                   |

<b>114 ELT Manufacturer, Fixed ELT's</b> A Other <u>UNK</u>	<b>115 ELT Model No., Fixed ELT's</b> A Other	<b>116 ELT Battery Type, Fixed ELT's</b> 1 <input type="checkbox"/> Alkaline 2 <input type="checkbox"/> Cadmium 3 <input type="checkbox"/> Ni/Cad 4 <input type="checkbox"/> Nickel 5 <input type="checkbox"/> Lithium A Other <u>UNK</u>	<b>117 Battery Expiration Date, Fixed ELT's (Nos. for M, D, Y)</b> A Other <u>UNK</u>
<b>118 ELT Manufacturer, Raft ELT's</b> A Other <u>UNK</u>	<b>119 ELT Model No., Raft ELT's</b> A Other <u>UNK</u>	<b>120 ELT Battery Type, Raft ELT's</b> 1 <input type="checkbox"/> Alkaline 2 <input type="checkbox"/> Cadmium 3 <input type="checkbox"/> Ni/Cad 4 <input type="checkbox"/> Nickel 5 <input type="checkbox"/> Lithium A Other <u>UNK</u>	<b>121 Battery Expiration Date, Raft ELT's (Nos. for M, D, Y)</b> A Other <u>UNK</u>